

HIGH DENSITY ANALOG RECORDING

ABSTRACT OF THE DISCLOSURE

A method of recording data on a recording medium includes mapping the data to a set of write symbols wherein each write symbol represents more than one bit of the data. The set of write symbols is defined by defining a set of variable write parameters; generating a plurality of candidate write symbols that specify different values for the variable write parameters; generating a plurality of readout waveforms produced by the plurality of candidate write symbols; analyzing the readout waveforms to determine desired set of readout waveforms; and selecting selected ones of the plurality of candidate write symbols that correspond to the desired readout waveforms to be included in the set of write symbols. The data is written to the medium using the write symbols.